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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,413	04/15/2005	Rolf Neumann	PHDE020229US	8122

38107 7590 09/03/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
595 MINER ROAD
CLEVELAND, OH 44143

EXAMINER	
SAIDI, AZADEH	
ART UNIT	PAPER NUMBER
3735	
MAIL DATE	DELIVERY MODE
09/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,413	NEUMANN ET AL.	
	Examiner	Art Unit	
	Anita Saidi	3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/15/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-10,12-15 and 22-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-10, 12-15 and 22-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is responsive to Applicant's arguments filed on August 7, 2008. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 1-2, 4-10, 12-15 and 22-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2, 4-10, 13-15 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over 4,109,643 to Bond et al (Hereinafter "Bond") in view of 6,939,307 to Dunlop (Hereinafter "Dunlop").

In reference to claims 1, 7 and 22:

Bond teaches:

A perfusion meter and a method of calculating perfusion index which comprises the steps of determining a perfusion index data for

presentation (510 of Bond), using an algorithm from measured values produced by a non-invasive photometric measuring process for determining the arterial oxygen saturation of the blood (Col. 3, line 65-Col. 5, line 40 and Col. 5, line 60-Col. 6, line 17 of Bond). The device comprises a pulse oximeter (Fig. 6c of Bond) for determining arterial O_2 saturation and for providing perfusion data (Abstract of Bond); and a display unit (510 of Bond) configured to display the perfusion value. A perfusion value is determined and displayed as a bar graph (Col. 6, line 65- Col. 7, line 7 of Bond). The recent perfusion index is compared with the previous value and the result will be displayed on the screen (Col. 7, lines 1-20 of Bond).

However, Bond fails to teach that:

A first perfusion index is defined as a reference value and subsequent perfusion indices are determined as relative deviations with respect to the reference value; and the reference value and the variation of the perfusion value are displayed on the display unit.

Dunlop teaches:

A method and apparatus for monitoring hemodynamic function in the humans during anesthesia and surgery. The hemodaynamic parameters are acquired using a pulse oximeter or a Doppler system (2 of Dunlop) wherein the parameters are indicators of the

condition of the health of the subject (Abstract of Dunlop). The blood flow rate of the subject is monitored before and during the anesthesia and is considered as the perfusion index, which is the output of the Doppler device (Col. 8, lines 45-50 and Col. 11, lines 44-60 of Dunlop). The flow rate determined while the subject is conscious is considered as the baseline (20 of Dunlop) which will be displayed as a base bar on the display (6 of Dunlop). As an alternative the device may be arranged to store a series of standard base bars being default settings for a particular size (Col. 8, lines 45-50 of Dunlop). The bar graph (21 of Dunlop) graphically continuously indicates peripheral blood flow rate based on the signal obtained from the peripheral vessel. All flow rates and flow alarms are determined relative to this base bar. A high limit bar (22 of Dunlop) and low limit bar (23 of Dunlop) are also displayed. These can either be pre-set by the anesthetist or pre-stored in memory to automatically be displayed depending upon the set base bar level and other subject factors. For example, appropriate limits could be determined by clinical trials and then stored in the memory of the device (Col. 9, lines 1-9 of Dunlop). A moving flow marker (24 of Dunlop) is also displayed. This shows the actual real-time flow rate (relative to the base bar). The anesthetist will watch this marker very carefully to obtain an indication of changes in

hemodynamic function of the subject (Col. 9, lines 9-13 of Dunlop). Therefore it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to have displayed the current physiological parameter is comparison to a reference value, similar to the teachings of Dunlop, in the perfusion meter of Bond, in order to allow the physician to monitor the trend of changes in the physiological parameter. It would have also been obvious to have replaced the display system of Bond with the one taught by Dunlop in order to be able display different physiological parameters of the patient on the same screen this would give the clinician more information regarding the health status of a patient.

In reference to claim 2:

The reference value can be selected automatically at the beginning of the photometric measuring process or it is selectable from perfusion index values during the photometric measuring process (Col. 8, lines 45-50 and Col. 11, lines 44-60 of Dunlop)

In reference to claim 4:

The reference value is stored on a memory chip (Col. 8, lines 45-50 of Dunlop)

In reference to claims 5 and 6:

The reference value as well as the subsequent perfusion indices; are scaled by a factor which is adjustable (Col. 5, lines 55-68 of Dunlop).

In reference to claims 13-15:

An upper alarm limit (22 of Dunlop) and a lower alarm limit (23 of Dunlop) are provided (Fig. 3 of Dunlop), where the alarm limits are adjustable (Col. 9, lines 1-10 of Dunlop). An alarm signal is triggered when the alarm limit is exceeded (Col. 9, lines 10-20 of Dunlop).

In reference to claims 8-10 and 23-25:

First and second analog graphic elements, such as bar graphs are used for the presentation of the reference value and the relative deviations, respectively. The relative variations of the perfusion are represented by a bar element and the reference value is represented by positioning of a reference graphic element respective to the bar element (elements 20-23 and Fig. 3 of Dunlop).

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bond and Dunlop as applied to claim 8 above, and further in view of US 5,912,656 to Tham et al (Hereinafter “Tham”).

In reference to claim 12:

Bond as modified by Dunlop teaches all of the claim limitations; see the rejection of claim 8 above.

However, the combination fails to teach that:

> The display is formed as a multidimensional type in conjunction with other physiological variables.

Tham teaches:

> A device for producing a display from monitored data functions to read, store, encode, and integrate monitored data of at least one data type from at least one monitoring device so that the related or unrelated datum is comprehensible at a glance by a user. The system produces a single superimposed and/or multidimensional image capable of portraying a present and historical data combination reflecting the monitored data's relative value at some point in time (Abstract and Fig. 4 of Tham).

Therefore it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to have used a known technique, such as displaying multiple types of data or a multidimensional image display as a means for displaying the collected data, for better comparison between the current record with the previously collected data, similar to the one taught by the

display device of Tham, in the perfusion meter of Bond as modified by Dunlop in order to improve the data presentation and provide a full report of the patient's physiological activity.

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bond and Dunlop as applied to claim 22 above, and further in view of US 5,438,983 to Falcone et al (Hereinafter "Falcone").

In reference to claim 26:

Bond as modified by Dunlop teaches all of the claim limitations; see the rejection of claim 22 above.

However, the combination fails to teach that:

The display unit is further configured to display arterial O_2 saturation determined by the pulse oximeter.

Falcone teaches:

A method and apparatus for detecting an alarm in a patient monitoring system. The values representative of physiological parameter of a patient are measured (Abstract of Falcone) using a sensor, such as pulse oximeter (16 and Col. 2, lines 6-10 of Falcone). The display can contain information such as waveforms or current parameter values (Col. 6, lines 1-10 of Falcone).

It would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to have displayed multiple physiological parameters acquired from a pulse oximeter, similar to the ones taught by Falcone (Fig. 6 displays the oxygen saturation value), in addition to the other physiological parameters displayed on the display unit of Bond as modified by Dunlop, in order to provide more information regarding the health status of the subject to the physician.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Saidi whose telephone number is (571)270-3001. The examiner can normally be reached on Monday-Friday 9:30 am - 6:00 pm Est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert L. Nasser Jr/
Primary Examiner, Art Unit 3735

/A. S./
Examiner, Art Unit 3735
9/2/2008